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10/800,662	03/16/2004	Tetsuya Kawanabe	00862.023505	4728

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EXAMINER

RAHMAN, FAHMIDA

ART UNIT	PAPER NUMBER
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2116

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/800,662

Applicant(s)

KAWANABE, TETSUYA

Examiner

Fahmida Rahman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This final action is in response to communications filed on 11/21/2006.
2. Claims 1, 3, 6-11 have been amended, claims 2 and 4 have been canceled and claims 12, 13, 14 have been added. Thus, claims 1, 3, 5-14 are pending.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority on 7/6/2004. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b). There is no document that shows the certification of the Japanese application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US Patent 6526516), in view of Kim (US Patent Application publication 2003/0070103).

For claims 1, 10 and 12, Ishikawa et al teach the following limitations:

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A printing apparatus (Fig 6) provided with a plurality of interface means (the three 150s) connectable to external devices (139 and 109) adapted to store image data and operated by power supplied from the printing apparatus (combination of 117, 123 and AC POWER SOURCE is the printing apparatus) the printing apparatus comprising: detection means for detecting a connection state of the external devices to the plurality of interface means (lines 31-50 of column 8); determining means for determining whether or not a total amount of power that the external devices demand exceeds an amount of power that the printing apparatus is capable of supplying when the detection means detects that a plurality of external devices are connected (line 63 of column 8 through line 6 of column 9); and selection means for selecting one of the external devices to be supplied with power according to an operating state of a previously connected external device among the external devices when the determining means determines that the total amount of power required exceeds the amount of power that the printing apparatus is capable of supplying (lines 50-62 of column 8 mention that the operating mode of printer is changed first, then the mode of editor and then the mode of camera. Therefore, the selection means selects the external device 109 to be supplied with power according to the operating state of first connected device 139).

Ishikawa et al do not explicitly teach the cease of supply to previously connected external device and start of supply to the newly connected external device among the external devices for the first two embodiments.

However, the third embodiment of Ishikawa et al described in columns 9-13, disclose a power control system that can be adopted in first and second embodiments. Ishikawa teaches the control of supply to previously connected external device and starts power supply to a newly connected device (line 65 of column 10 through line 2 of column 11 teach that the change in power consumption mode depends on priority and mode. Therefore, power supply to a previously connected device with lower priority and idle mode operating condition can be ceased to power a high priority newly added device. Fig 11 and Fig 15 describe the addition of newly added device. The newly added device or adapter is started with power by changing the mode of previously connected device as explained in lines 1-12 of column 15. In that way a previously connected device that was in idle mode can be now shut off and a newly connected device is added to the system). However, Ishikawa does not describe how to shut off the power supply to the older devices, although Ishikawa controls the devices based on priority.

Kim teaches a system where each of the connected devices can be individually turned off based on data analysis. Therefore, idle device is turned off and the second device could be restarted based on data signal. It is possible that first device is first connected and second device is later connected.

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of first three embodiments in Ishikawa and Kim, as the

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third embodiment of Ishikawa basically teaches the power control that can be adopted by first and second embodiments. One ordinary skill would be motivated to incorporate the power management as disclosed in third embodiment as it provides the effective way of adding new device in a system. One ordinary skill in the art would have been motivated to have start/stop feature of Kim in the system of Ishikawa to implement the power control feature.

For claim 3, Kim's system restarts any device that is not idle and stops the device that is disconnected/idle. Therefore, the first connected device can be restarted if data detector detects data on the line.

For claim 5, the embodiment of Fig 5 does not provide user selection means. However, embodiment of Fig 9 provides a plurality of devices, which are controlled based on priority set beforehand (lines 65-67 of column 10). As the setting of priority typically requires user selection of the devices, the selection means comprises user selection means.

It would have been obvious for an ordinary skill in the art at the time the invention was made to have user selection means in the embodiment of Fig 5, as that would provide the complete control over the devices.

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For claim 6, interface means of Ishikawa comprises different specification as 109 and 139 are two different devices.

For claims 7 and 8, Ishikawa et al do not mention about USB and memory card interface. Examiner takes an official notice that USB and memory card interface is well known in the art. One ordinary skill in the art would be motivated to use USB for it's increased speed, memory card interface for increased storage.

For claim 9, the embodiment of Fig 5 does not provide 1394 interface. However 5th embodiment (lines 5-10 of column 17) provides 1394 interface. One ordinary skill in the art would be motivated to use such interface in the embodiment of Fig 5 for increased speed.

For claim 11, Ishikawa et al teach the following limitations:

A power supply control method in a printing apparatus (Fig 6) provided with a plurality of interface means (the three 150s) connectable to external devices (139 and 109) adapted to store image data and operated by power supplied from the printing, the method comprising:

detecting a connection state of the external devices to the respectively plurality of interface means (lines 31-50 of column 8);

determining whether or not a total amount of power that the plurality of external devices demands exceeds an amount of power that the printing apparatus is

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capable of supplying when the detection means detects that a plurality of external devices are connected (line 63 of column 8 through line 6 of column 9);

selecting an external device to be supplied with power according to an operating state of a first-connected external device when the determining means determines that the total amount of power required exceeds the amount of power that the printing apparatus is capable of supplying (lines 50-62 of column 8 mention that the operating mode of printer is changed first, then the mode of editor and then the mode of camera. Therefore, the selection means selects the external device 109 to be supplied with power according to the operating state of first connected device 139).

Ishikawa et al do not explicitly teach the cease of supply to previously connected external device and start of supply to the newly connected external device among the external devices for the first two embodiments.

However, the third embodiment of Ishikawa et al described in columns 9-13, disclose a power control system that can be adopted in first and second embodiments. Ishikawa teaches the cease of supply to previously connected external device and starts power supply to a newly connected device (line 65 of column 10 through line 2 of column 11 teach that the change in power consumption mode depends on priority and mode. Therefore, power supply to a previously connected device with lower priority and idle mode operating condition can be ceased to power a high priority newly added device. Fig 15 describes the addition of newly added device. The newly added device or

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adapter is started with power by changing the mode of previously connected device as explained in lines 1-12 of column 15. In that way a previously connected device that was in idle mode can be now shut off and a newly connected device is added to the system). However, Ishikawa does not describe how to shut off the power supply to the older devices, although Ishikawa controls the devices based on priority.

Kim teaches a system where each of the connected devices can be individually turned off based on data analysis. Therefore, idle device is turned off and the second device could be restarted based on data signal. It is possible that first device is first connected and second device is later connected.

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of first three embodiments in Ishikawa and Kim, as the third embodiment of Ishikawa basically teaches the power control that can be adopted by first and second embodiments. One ordinary skill would be motivated to incorporate the power management as disclosed in third embodiment as it provides the effective way of adding new device in a system. One ordinary skill in the art would have been motivated to have start/stop feature of Kim in the system of Ishikawa to implement the power control feature.

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5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US Patent 6526516).

For claim 13, Ishikawa et al teach the following limitations:

A printing apparatus (Fig 6) provided with a plurality of interface means (the three 150s) connectible to external devices (139 and 109) adapted to store image data and operated by power supplied from the printing apparatus (combination of 117, 123 and AC POWER SOURCE is the printing apparatus), the printing apparatus comprising:

- detection means for detecting a connection state of the external devices to the plurality of interface means (lines 31-50 of column 8);
- determining means for determining whether or not a total amount of power that the external devices demand exceeds an amount of power that the printing apparatus is capable of supplying when the detection means detects that two or more of the external devices are in the connection state (line 63 of column 8 through line 6 of column 9);

Ishikawa teaches the following limitations for third embodiment:

- notice means for notifying that the operation of a previously-connected external device among the external devices stops when the determining means determine that the total amount of power required exceeds the amount of power that the printing apparatus is capable of supplying (lines 1-10 of column 11).

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It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of first three embodiments in Ishikawa, as the third embodiment of Ishikawa basically teaches the power control that can be adopted by first and second embodiments.

For claim 14, Ishikawa et al teach the following limitations:

A printing apparatus (Fig 6) provided with a plurality of interface means (the three 150s) connectible to external devices (139 and 109) adapted to store image data and operated by power supplied from the printing apparatus (combination of 117, 123 and AC POWER SOURCE is the printing apparatus), the printing apparatus comprising:

- detection means for detecting a connection state of the external devices to the plurality of interface means (lines 31-50 of column 8);
- determining means for determining whether or not a total amount of power that the external devices demand exceeds an amount of power that the printing apparatus is capable of supplying when the detection means detects that two or more of the external devices are in the connection state (line 63 of column 8 through line 6 of column 9); and

Ishikawa teaches the following limitations for fourth embodiment:

- notice means for notifying that a newly-connected external device among the external devices cannot be used during operation of a previously-connected external device among the external devices (S807 in Fig 15 shows that mode transition is only possible when current drain is less than limit. Therefore, newly

connected adapter cannot be in operation mode until drained current is less than limit current), when the determining means determines that the total amount of power required exceeds the amount of power that the printing apparatus is capable of supplying (Fig 15, line 63 of column 14 through line 32 of column 15).

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of first four embodiments in Ishikawa, as the third embodiment of Ishikawa basically teaches the power control that can be adopted by first and second embodiments.

Response to Arguments

Applicant's arguments filed on 11/21/2006 with respect to certified copy of foreign priority application are not persuasive, since only the claim of foreign priority had been received on July 6, 2004. No certified copy had been received on July 6, 2004.

Applicant's arguments with respect to claims 1, 3, 5-11 have been considered but are moot in view of the new ground(s) of rejection. As Ishikawa is still relied upon for rejection, Examiner is addressing arguments relevant to Ishikawa.

Applicant argues that Ishikawa does not teach or suggest that after a previously-connected external device enters an idle state, power supply to the previously

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connected external device is stopped and power supply to a newly connected external device is started.

Examiner disagrees. Lines 40-45 of column 15 mentions that controller checks the current value of each device and control current drain of each device in such a manner that the supplied current will always be less than the limit value. Besides, line 65 of column 10 through line 2 of column 11 teaches that the mode change depends on priority of devices and mode of the devices. Therefore, for a high priority newly connected device, controller is likely to stop a low priority previously connected device when it enters an idle state. Kim disclosed stopping of supply to a idle device and starting of supply to an active device. Therefore, Ishikawa, in view of Kim, teaches stopping of supply to lower priority previously connected device when it is in idle state and starting of supply to higher priority newly connected device.

Applicant argues that Ishikawa does not teach or suggest that a previously-connected external device stops when determined that the total amount of power required exceeds the printing apparatus is capable of supplying.

Examiner disagrees. Lines 1-10 of Ishikawa mention that device is turned off when too much power has been supplied. That device can be previously connected as the system can add new device any time.

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Applicant argues that Ishikawa does not teach or suggest that a newly-connected external device cannot be used during the operation of a previously connected device when determined that the total amount of power that the printing apparatus is capable of supplying.

Examiner disagrees. Fig 15 shows the loop. S807 cannot be reached until S806 is true. S807 set the mode for the devices and therefore, shows when the devices can be used.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fahmida Rahman

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whose telephone number is 571-272-8159. The examiner can normally be reached on Monday through Friday 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fahmida Rahman
Examiner
Art Unit 2116


A. ELAMIN
PRIMARY EXAMINER